ABSTRACT

Disclosed are derivatized malto-oligosaccharides and methods for the preparation thereof. In accordance with the disclosed invention, a malto-oligosaccharide is hydrogenated to thereby obtain a hydrogenated malto-oligosaccharide, and the resulting hydrogenated malto-oligosaccharide is derivatized, such as via oxidation, esterification, etherification, or enzymatic modification. The derivatization of such hydrogenated malto-oligosaccharides results in a surprisingly low level of a formation of by-products and products of degradation. In a particularly preferred embodiment of the invention, a mixture of malto-oligosaccharides is catalytically hydrogenated under reaction conditions suitable to substantially preserve the degree of polymerization (DP) profile of the mixture. The resulting malto-oligosaccharide mixture then is derivatized to form a derivatized malto-oligosaccharide mixture.